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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/616,810	07/14/2000	Leslie G. Fritzemeier	05770-095001	6592
26161	7590	12/22/2003	EXAMINER	
FISH & RICHARDSON PC			NORRIS, JEREMY C	
225 FRANKLIN ST			ART UNIT	PAPER NUMBER
BOSTON, MA 02110			2827	

DATE MAILED: 12/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/616,810

Applicant(s)

FRITZEMEIER ET AL.

Examiner

Jeremy C. Norris

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-106 is/are pending in the application.
- 4a) Of the above claim(s) 31-106 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments, see response, filed 18 August 2003, with respect to the rejection(s) of claim(s) 1-30 under 35 USC 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made as stated below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 18-30 rejected under 35 U.S.C. 102(b) as being anticipated by US 5,231,074 (hereafter Cima).

Cima discloses a composition, comprising: a first salt of a first metal ($\text{Cu}(\text{OH})_2\text{CO}_3$); a second salt of a second metal (BaCO_3); a third salt of a rare earth metal ($\text{YCO}_3 \cdot 3\text{H}_2\text{O}$), wherein at least one of the first, second and third salts comprises a trifluoroacetate (see col. 2, lines 55-65) and the composition has a mole ratio of fluorine to the second metal of from about two to about 18.5 [claim 18], wherein the composition has a mole ratio of fluorine to the second metal of from about two to about 10 [claim 19], wherein the first metal comprises copper and the second metal is selected from the group consisting of barium, strontium and calcium [claim 20], wherein the rare earth

Art Unit: 2827

metal comprises yttrium [claim 21], wherein the first metal comprises copper, the second metal comprises barium and the third metal comprises yttrium [claim 22], wherein a ratio of copper atoms to barium atoms to yttrium atoms contained in the solution is about 3:2:1 (see col. 3, lines 60-65) [claim 23], wherein the composition is disposed on a surface of layer (see col. 3, lines 55-60) [claim 24], wherein the layer comprises a material selected from the group consisting of a substrate, a buffer layer and a superconductor layer [claim 25], further comprising water, wherein the composition has a water content (20-30% see col. 3, lines 60-65) of less than about 50 volume percent [claim 26], wherein the water content is less than about 35 volume percent [claim 27], wherein the water content is less than about 25 volume percent [claim 28], wherein at least two of the first, second and third salts comprises trifluoroacetates (see col. 3, lines 60-65) [claim 29], wherein each of the first, second and third salts comprise trifluoroacetates [claim 30].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 2827

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cima in view of US 6,080,894 (hereafter Oyague).

Cima discloses, a composition, comprising: a first salt of a first metal ($\text{Cu}(\text{OH})_2\text{CO}_3$); a second salt of a second metal (BaCO_3); a third salt of a rare earth metal ($\text{YCO}_3 \cdot 3\text{H}_2\text{O}$), wherein at least one of the first, second and third salts comprises a trifluoroacetate (see col.2, lines 55-65). Cima does not specifically state the total free acid concentration. However, it would have been obvious, to one having ordinary skill in the art, at the time of invention, to make said concentration to be less than 0.001 molar [claim 1], less than 0.00001 molar [claim 2] or even about 0.0000001 molar [claim 3], since it is well known in the chemical arts, and evidenced by Oyague (see col. 3, lines 1-5), when reacting a strong acid to metals to provide just enough acid to leave such a nominal free acid concentration. The motivation for doing so would have been to

provide enough acid to allow the reactions to occur at an acceptable rate while avoiding using a superfluous amount, thereby reducing waste. Moreover, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Furthermore, the modified invention of Cima discloses the composition described above, wherein the composition has a mole ratio of fluorine to the second metal of at least about two [claim 2] wherein the composition has a mole ratio of fluorine to the second metal of from about two to about 18.5 [claim 5], wherein the composition has a mole ratio of fluorine to the second metal of from about two to about 10 [claim 6], wherein the first metal comprises copper and the second metal is selected from the group consisting of barium, strontium and calcium [claim 7], wherein the rare earth metal comprises yttrium [claim 8], wherein the first metal comprises copper, the second metal comprises barium and the third metal comprises yttrium [claim 9], wherein a ratio of copper atoms to barium atoms to yttrium atoms contained in the solution is about 3:2:1 (see col. 2, lines 55-65) [claim 10], wherein the composition is disposed on a surface of a layer (see col. 2, lines 55-60) [claim 11], wherein the layer comprises a material selected from the group consisting of a substrate, a buffer layer and a superconductor layer [claim 12], further comprising water, wherein the composition has a water content of less than about 50 volume percent (20-30%) [claim 13], wherein the water content (20-30%) is less than about 35 volume percent [claim 14], wherein the water content (20-30%) is less than about 25 volume percent [claim 15], wherein at

Art Unit: 2827

least two of the first, second and third salts comprises trifluoroacetates [claim 16], wherein each of the first, second and third salts comprise trifluoroacetates [claim 17].

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy C. Norris whose telephone number is 571-272-1932. The examiner can normally be reached on Tuesday - Friday, 10am - 7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-308-0725.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



JCSN